

CD69 antibody - middle region

Rabbit Polyclonal Antibody Catalog # AI14909

Product Information

Application WB Primary Accession Q07108

Other Accession <u>NM_001781</u>, <u>NP_001772</u>

Reactivity Human, Mouse, Rat, Dog, Guinea Pig

Predicted Human, Mouse, Rat, Dog

Host Rabbit
Clonality Polyclonal
Calculated MW 22559

Additional Information

Gene ID 969

Alias Symbol CLEC2C, AIM, EA1, MLR-3, GP32/28, BL-AC/P26

Other Names Early activation antigen CD69, Activation inducer molecule, AIM, BL-AC/P26,

C-type lectin domain family 2 member C, EA1, Early T-cell activation antigen p60, GP32/28, Leukocyte surface antigen Leu-23, MLR-3, CD69, CD69, CLEC2C

Format Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium

azide and 2% sucrose.

Reconstitution & Storage Add 50 ul of distilled water. Final anti-CD69 antibody concentration is 1 mg/ml

in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C.

Avoid repeat freeze-thaw cycles.

Precautions CD69 antibody - middle region is for research use only and not for use in

diagnostic or therapeutic procedures.

Protein Information

Name CD69

Synonyms CLEC2C

Function Transmembrane protein expressed mainly on T-cells resident in mucosa that

plays an essential role in immune cell homeostasis. Rapidly expressed on the surface of platelets, T-lymphocytes and NK cells upon activation by various stimuli, such as antigen recognition or cytokine signaling, stimulates different

signaling pathways in different cell types (PubMed:24752896,

PubMed: <u>26296369</u>, PubMed: <u>35930205</u>). Negatively regulates Th17 cell differentiation through its carbohydrate dependent interaction with

galectin-1/LGALS1 present on immature dendritic cells (PubMed:24752896). Association of CD69 cytoplasmic tail with the JAK3/STAT5 signaling pathway regulates the transcription of RORgamma/RORC and, consequently, differentiation toward the Th17 lineage (By similarity). Also acts via the S100A8/S100A9 complex present on peripheral blood mononuclear cells to promote the conversion of naive CD4 T-cells into regulatory T-cells (PubMed: <u>26296369</u>). Acts as an oxidized low-density lipoprotein (oxLDL) receptor in CD4 T- lymphocytes and negatively regulates the inflammatory response by inducing the expression of PDCD1 through the activation of NFAT (PubMed:35930205). Participates in adipose tissue-derived mesenchymal stem cells (ASCs)-mediated protection against P.aeruginosa infection. Mechanistically, specifically recognizes P.aeruginosa to promote ERK1 activation, followed by granulocyte-macrophage colony-stimulating factor (GM-CSF) and other inflammatory cytokines secretion (PubMed: 34841721). In eosinophils, induces IL-10 production through the ERK1/2 pathway (By similarity). Negatively regulates the chemotactic responses of effector lymphocytes and dendritic cells (DCs) to sphingosine 1 phosphate/S1P by acting as a S1PR1 receptor agonist and facilitating the internalization and degradation of the receptor (PubMed: 37039481).

Cellular Location

Cell membrane; Single-pass type II membrane protein

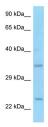
Tissue Location

Expressed on the surface of activated T-cells, B- cells, natural killer cells, neutrophils, eosinophils, epidermal Langerhans cells and platelets

References

Hamann J., et al.J. Immunol. 150:4920-4927(1993). Lopez-Cabrera M., et al.J. Exp. Med. 178:537-547(1993). Ziegler S.F., et al.Eur. J. Immunol. 23:1643-1648(1993). Santis A., et al.Eur. J. Immunol. 24:1692-1697(1994). Natarajan K., et al. Biochemistry 39:14779-14786(2000).

Images



WB Suggested Anti-CD69 Antibody Titration: 1.0 μg/ml Positive Control: HCT15 Whole Cell

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.